

Claims

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1. A method for producing a large-volume, cup-shaped or tub-shaped container of thermoplastic material, in which a hose-shaped pre-form of compact plastic material is extruded to a predetermined length, is widened by means of spreading elements by a predetermined amount, and is subsequently formed to a container by means of shaping air, ^{wherein} ~~characterized in that~~ a core is moved into the extruded, hose-shaped and widened pre-form from below and the widened pre-form is clamped at its lower, free end sealingly against the core.
 2. The method according to claim 1, ^{wherein} ~~characterized in that~~ the container is formed by means of vacuum on the core which is designed as a shaping body.
 3. The method according to claim 1, ^{wherein} ~~characterized in that~~ the container is formed by means of vacuum or blowing air on a two-part hollow mold surrounding the core at a spacing and being designed as a shaping body.
 4. The method according to ^{claim 1} ~~at least one of the claims 1 to 3,~~ ^{wherein} ~~characterized in that~~ the extruded pre-form is widened by at least two rod-shaped spreading elements.
 5. The method according to ^{claim 1} ~~at least one of the claims 1 to 3,~~ ^{wherein} ~~characterized in that~~ the extruded pre-form is widened by the core.

a 6. A device for performing the method according to ~~at least one~~ ^{claim 1}
a ~~of the claims 1 to 5~~, comprised of an extrusion head for
forming a hose-shaped pre-form of a single-layer, compact
plastic material and a spreading unit movable from below the
pre-form (6) to be formed by a relative movement into the pre-
form (6), ^{wherein} ~~characterized in that~~ a core (2) is arranged below
the pre-form to be formed and can be introduced into the pre-
form (6), and in that the core (2) has an at least two-part
clamping element (8) correlated therewith which sealingly
presses the pre-form (6) onto the core (2), and in that the
core (2) can be loaded with a vacuum.

a 7. A device for performing the method according to ~~at least one~~ ^{claim 1}
a ~~of the claims 1 to 5~~, comprised of an extrusion head for
forming a hose-shaped pre-form of a single-layer, compact
plastic material and a spreading unit movable from below the
pre-form (6) to be formed by a relative movement into the pre-
form (6), ^{wherein} ~~characterized in that~~ a core (2) is arranged below
the pre-form to be formed and can be introduced into the pre-
form (6), and in that the core (2) has an at least two-part
clamping element (8) correlated therewith which sealingly
presses the pre-form (6) onto the core (2), and in that a
hollow mold (10), loadable with vacuum or blowing air and
surrounding the core (2) at a spacing, is correlated with the
core.

a 8. The device according to ~~claim 6 or 7~~ ^{claim 6, wherein}, characterized in that
the spreading unit is comprised of at least two spreading
elements (3) that can be moved apart.

a 9. The device according to claim 8, ^{wherein} ~~characterized in that~~ the spreading elements (3) have different cross-sectional shapes.

10. The device according to ^{claim 8 wherein} ~~claim 8 or 9, characterized in that~~ the spreading elements (3) are formed of parts of the shaping body (2).

a 11. The device according to ^{claim 8} ~~at least one of the claims 8 to 10,~~
a ^{wherein} ~~characterized in that~~ the spreading elements (3) are configured to be radially movable.

a 12. The device according to ^{claim 8} ~~at least one of the claims 8 to 10,~~
a ^{wherein} ~~characterized in that~~ the spreading elements (3) are configured to be pivotable.

a 13. The device according to ^{claim 6, wherein} ~~claim 6 or 7, characterized in that~~ the spreading unit is formed by a spreadable or foldable core.